

# Effects of the First language to the Second: A Study of Waaṭa Students in Kenya

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## Abstract

This study analyzed morphophonological errors made by Waaṭa students learning Kiswahili as a second language. Using interviews, essay writing, and reading exercises, the research involved 30 students from three schools. Data was analyzed using Corder's error analysis theory. Results identified three types of errors: substitution, omission, and insertion of Kiswahili phonemes, with omission and substitution being most common. The errors were attributed to morphophonological differences between Kiwaṭa (the students' first language) and Kiswahili, as well as influences from surrounding communities. The study aims to suggest solutions for these errors, contributing to the preservation and understanding of Kiwaṭa, an endangered Cushitic language on the Kenyan coast. This research highlights the challenges faced by speakers of minority languages in acquiring dominant languages and emphasizes the need for tailored language instruction methods.

**Keywords:** Morphophonological, Error Analysis, Errors of substitution, Errors of omission, Errors of insertion, and Second language.

## Introduction

This research is about the effect of errors that act as hurdles to students learning Kiswahili as a second language. Therefore, the research focused on the analysis of morphophonological errors made by Waaṭa students when learning Kiswahili as a second language. Language transfer is vital in second language acquisition. The transfer is bidirectional, that is the first language can influence the second language and the second language can have an effect on the first language. The effects of the first language to the second language is called forward transfer and the effects of the second language to the first language is known as backward transfer. Therefore, this study focuses on the forward transfer, in that it involves the effects of Kiwaṭa language which is the first language of the students, and Kiswahili which is the second language of the students.

According to Corder (1967), in explaining the concept of errors in second language acquisition, he distinguished between two concepts, which are errors and mistakes. Corder (1967), Miller (1966), Richards (1974:24), and Ellis (1994) explain that errors are as a consequence of the learner's language competence and often exhibit certain patterns. Language competence is the knowledge a native speaker possesses of a particular language, which they possess without being consciously aware of it. This knowledge also enables native speakers to generate infinite sentences in their language. Corder (1967) also noted that a learner's mistakes are due to performance rather than an indication of their language competence. Performance refers to how a person uses their language in real-life situations. This means that if a student makes mistakes in their speech or writing, it does not necessarily imply that they lack competence in their language, as performance is influenced by various factors such as fatigue, fear, and anger, among many others.

According to Krashen, (1982), competence gained through learning, or the monitor as he terms it, can only modify language generated by acquired language competence. The second language students can use learned rules to monitor or correct their language either before or after the moment of production. Since Krashen's research indicates that acquired competence is more accessible and reliable than learned competence, teachers should help students exploit their acquired competence in whatever ways possible. Therefore, this research focuses on analyzing errors made by Waaṭa students when learning Kiswahili as a second language through both written and spoken communication.

Furthermore, this research encompassed two linguistic components: Phonology and Morphology to provide a more comprehensive analysis of errors in Kiswahili that has its roots in the Kiwaaṭa language. Phonology is a linguistic branch that deals with the study of the patterns of sounds in a specific language. Morphology, on the other hand, deals with the study and analysis of the forms, structures, and types of words as well as their histories.

Massamba, (1996), explained that morphophonology, as used by Trubetzkoy, (2012), referred to a part of linguistics that could use morphology to explain certain phonological differences that could not be achieved using phonological data alone. Thus, Morphophonology is a discipline that deals with the analysis and classification of phonological elements that affect the form of morphemes in their sequences. This means that phonological errors, which are part of phonology, are found in actual word forms, which are part of morphology.

The researcher conducted this study in the Kiwaaṭa language because, until now, there have been very few linguistic studies on this language. Moreover, the few articles written about this language are mostly about its history and culture, and they do not delve into the language. Additionally, stigma and negative attitudes towards the Waaṭa community have made them hesitant to identify as Waaṭa and even speak their language. As a result, Waaṭa tend to associate themselves with neighboring communities such as the Giriama. This situation poses a risk of the language disappearing or becoming extinct. These issues motivated the researcher

to conduct a linguistic study in the Waaṭa community.

### **Background of the Kiwaṭa Language**

Kiwaṭa is one of the Cushitic languages on the Kenyan Coast. Various communities along the Coast call them by various names. As noted by scholars such as Holman (1967) and Hobley (1912), they are referred to as Wasanye by the Swahilis, Ariangulo by Giriama, Walangulo by the Durumas, Waaṭa by the Ormas and they also refer themselves as Waaṭa. The Amhara people of Ethiopia refer to them as Weyto.

The Waaṭa community has a long history of being involved in hunting wild animals, particularly elephants, and gathering wild fruits. However, this hunting activity came to an end in 1977 when hunting was prohibited and declared illegal, primarily to conserve wildlife and encourage tourism in Kenya. The ban on hunting had a significant impact on their way of life, as they relied on hunting and gathering for their livelihood. Traditional hunters were viewed as lawbreakers in Kenya, as noted by Holman (1967). Waaṭa were specifically targeted in anti-elephant hunting campaigns in Tsavo National Park in Kenya, and this situation marginalized the Waaṭa, depriving them of their traditional way of life and place in society.

Due to the stigma of being labeled as illegal hunters, some Waaṭa started hiding their identity for fear of persecution. They identified themselves with other pastoralist groups they interacted with. This led to their cultural identity not being recognized. During census counts, the Waaṭa were often categorized as “others” or forced to be included within the Borana and Gabra communities in Kenya. In 1998, Bashuna launched a campaign to register the Waaṭa community as a self-identifying group in the 1999 national census, but this campaign was not successful.

The Waaṭa do not live as a single community (Bassi, 1997; Cerulli, 1922; Stiles, 1981). They are dispersed in different regions, including the Kenyan Coast, Tana and Galana areas, the Taru Desert, Isiolo, Marsabit, and some parts of Ethiopia and Tanzania (Holman, 1967b; Stiles, 1981). These groups are named according to their locations. Heine (1973) categorized the Waaṭa into three groups as follows:

*Waaṭa -gedi*: Found in the northern and southern regions of Malindi.

*Waaṭa -omartu*: Found in the areas between Hola and Garsen.

*Waaṭa -manyole*: Found in the areas between Garissa and Hola.

Additionally, Bassi (1997), Bashuna (1993:33), and Heine (1981:9) further categorized the Waaṭa into the following groups:

*Waaṭa Wanduu*: Residing in the Sagan Valley in southern Ethiopia.

*Waaṭa Golboo or Galole*: Living in the Chalbi Desert in northern Kenya.

Today, many of the Waaṭa live on the margins of mainstream society. However, some Waaṭa are found in limited numbers in northern Kenya, engaged in activities

like making charcoal, supplying construction poles to urban residents, and serving as guards in towns or begging (Bashuna 1993:38). Waaṭa live impoverished lives and those individuals who are better off are traders in small towns. However, the Borana and Gabra communities continue to subject them to the types of negative stereotyping. This has led to some of the Waaṭa refusing to perform their traditional ritual duties such as at the rites of passage for retiring elders held in Southern Ethiopia in July-August 2003 (Cynthia Salvadori, personal communication).

There is no comprehensive record of the exact number of Waaṭa worldwide since they are dispersed across various regions, making it challenging to determine their exact population. Bashuna estimates the Waaṭa population to be around 20,000, but Kassam claims that this estimate is low. According to Eberhard et al. (2021), the recent estimate for the Waaṭa population is approximately 20,100. The small population of the Waaṭa community highlights the risk of their language, Kiwaaṭa, fading away, making it crucial to research to preserve their linguistic heritage. This was a significant motivation for the researcher to study this language. The research was conducted among the Waaṭa communities in Mijomboni, Dabaso, and Gede in Kilifi County, Kenya.

## **Research Design and Methodology**

### ***Objectives and Research Questions***

This study focused on analyzing errors made by Waaṭa students when learning Kiswahili as a second language through both written and spoken communication. Speakers of the Kiwaaṭa language as their first language make errors when learning Kiswahili through speaking and writing. Therefore, there are three research questions as follows:

- i. What morphophonological errors occur among the Waaṭa students when learning Kiswahili as a second language?
- ii. Can the Morphophonological errors from the Waaṭa students be analyzed using The Error Analysis Theory?
- iii. What recommendations can be made to rectify Morphophonological errors among the Waaṭa students learning Kiswahili as a second language?

### ***Subjects***

The research participants in this study were high school students from Gede, Dabaso, and Mijomboni areas in Kenya, therefore three schools were involved. Since the research involved three schools in these areas, each school had ten students to participate in the study. Therefore, the sample included a total of thirty students. The study involved both male and female students.

## **Methodology and Procedure**

### ***Interviews***

The researcher used the interview method when collecting Kiwaḥḥa phonemes in the field. The researcher interviewed some of the Waaḥa people in Mijomboni area while recording how they pronounced the Kiwaḥḥa phonemes to obtain distinctive features of the phonemes. The main goal of recording these interviews was to help the researcher listen later if she had not acquired distinctive phonemic features. Since Kiwaḥḥa phonemes have not been academically Identified, the research used this method to collect the phonemes. This collection would be useful during the data analysis concerning the errors made by Kiwaḥḥa students learning Kiswahili as their second language, to determine the causes of these errors. With this method, the researcher identified twenty-nine Kiwaḥḥa phonemes; five vowel phonemes, and twenty-four consonant phonemes.

The researcher obtained her interviewees using purposive sampling as the researcher contacted the leader of the Waaḥa community, Mzee Geoffrey Mashauri, at the Mijomboni area in Kenya, who assisted in selecting interviewees for the research. Similarly, through purposive sampling, the researcher contacted teachers in the schools where the research was conducted to help select students of Kiwaḥḥa origin who would help in the research.

### ***Essay Writing***

The researcher provided essays for selected Waaḥa students learning Kiswahili as their second language. Different essays were given depending on the class level of the students. These students were given specific instructions regarding the time allocated for essay writing and the word count requirement. After writing these essays, the researcher collected them with the help of the schoolteachers. This data collection allowed the researcher to assess whether the students adhered to the given instructions. The students were given time to rest until the next day when the researcher returned their essays before grading. Each student then read their essay aloud while the researcher recorded it. This method was applied in all the schools that the researcher visited.

### ***Reading of Essays***

Each student had the opportunity to read their essay aloud while the researcher listened carefully to their pronunciation and recorded it. The primary purpose of recording the students while they read their essays was to preserve the pronunciation for future use, allowing the researcher to listen later if she needed to verify specific pronunciations. Through these methods, the researcher collected data that demonstrated errors made by Waaḥa students when learning Kiswahili as their second language through their written and spoken language.

## Results and Discussions

### *The Error Analysis Theory*

The Error Analysis Theory, which was founded by Corder (1981) was used in this study. This theory is used to analyze errors, especially the sources of errors. In the theory of error analysis, Corder explains that anyone learning a second language makes errors, and this theory can identify the errors, classify them, identify the source, and correct them.

This theory explains that the mistakes made by second language students are due to the influence of the first language and can be corrected using this theory. Corder's theory came after the theory of comparative analysis which was used to compare two languages.

The Error Analysis Theory identifies the errors made by second language learners by relating these errors to forward transfer, especially from the first language. Corder (1974) listed the important steps in successfully identifying errors and analyzing them. These steps are as follows, Identification of Errors, classification of errors, explanation of errors, and evaluation of errors.

Sridhar and Sridhar (1980 p. 222) also classified eight steps in the theory of error analysis which are: Data collection, identifying errors, classifying errors, counting errors, identifying error components, correcting errors, identifying the cause of the errors, and showing the effect caused by the occurrence of the error.

This study used the opinions of these two experts: Corder (1974) and Sridhar and Sridhar (1980 p. 222) in analyzing errors in second language learning. These experts have the same ideas in their first steps where they explained that it is the collection of data from the respondents. These experts also agree that errors should be divided into different categories. When these errors were identified, it was easy for the researcher to identify the source of those errors and even be able to explain the appropriate methods that could be used to correct them. Therefore, this study was guided by the following tenets from the Error Analysis Theory as follows:

### *Data Collection*

The researcher used the interview method when collecting Kiwaḫa phonemes in the field whereby she interviewed some of the Waḫa people in the Mijomboni area while recording how they pronounced these phonemes to obtain distinctive features of these phonemes. This collection would be useful during the data analysis concerning the errors made by Kiwaḫa students learning Kiswahili as their second language, to determine the causes of these errors. Therefore, the researcher identified twenty-nine Kiwaḫa phonemes; five vowels, and twenty-four consonants, as follows:

Kiwaḫa vowels: [a], [ɛ], [i], [ɔ] na [u].

Kiwaḫa consonants: [b], [tʃ], [d], [ð], [f], [ŋg], [g], [h], [j], [k], [l], [m], [n], [p], [q], [r], [s], [ʃ], [t̪], [v], [w], [j], [ɲ] na [z].

### *Distinctive Features of Kiwaaṭa Vowels*

**[a]** - The vowel [a] of Kiwaaṭa is a central vowel. When pronouncing this vowel, the tongue lies down on the lower side of the mouth. Also, when pronouncing it, the lips are unrounded.

**[ɛ]** - The vowel [ɛ] of Kiwaaṭa is pronounced in the front part of the mouth, therefore it is a front vowel. When pronouncing this vowel, the tongue lies down close to the bottom and the lips are unrounded.

**[i]** - The vowel [i] of Kiwaaṭa is pronounced in the front part of the mouth. During the pronunciation of this vowel, the tongue is on the upper side of the mouth. Likewise, when pronouncing it, the lips are unrounded.

**[ɔ]** - The vowel [ɔ] of Kiwaaṭa language is pronounced in the back of the mouth. When pronouncing this vowel, the tongue is not at the bottom but very close to the bottom, and the lips are rounded.

**[u]** - The vowel [u] of Kiwaaṭa language is pronounced in the back of the mouth. During the Pronunciation of this vowel, the tongue is at the top of the mouth. Also, when pronouncing this sound, the lips are rounded.

### *Distinctive Features of Kiwaaṭa Consonants*

In determining the features of Kiwaaṭa consonants, the researcher has considered four features which are Place of articulation, manner of articulation, voicing, and glottal state.

#### **Place of Articulation**

This characteristic considers the various organs used in the pronunciation of certain sounds. These organs are the lips, dental, mouth and dental, gums, soft palate, hard palate, glottis, and uvula.

Kiwaaṭa consonants are pronounced using the following organs:

Lips: [m], [p], [b] and [w]

Dental: [d], [t] and [θ]

Mouth and Dental: [f] and [v]

Gums: [z], [s], [n], [l] and [r]

Hard palate: [ʃ], [ʒ], [tʃ], [dʒ] and [j]

Soft palate: [g], [k] and [ŋg]

Glotta: [h]

Uvula: [q]

### **The Manner of Pronouncing Kiwaḥḥa Consonants**

This feature refers to the way the air is obstructed in the sound tube when pronouncing those consonants. The airflow can be completely blocked, then allowed to pass through a small opening and with difficulty, and can also be allowed to pass unhindered. Kiwaḥḥa consonants are pronounced in the following ways:

**Cracks:** Cracks are sounds that are pronounced when the airway is completely blocked and then allowed to pass suddenly and explosively. Examples of Kiwaḥḥa consonants with this characteristic are [b], [p], [d̥], [k] and [g].

**Fricatives:** These are sounds that, when uttered, the air is blocked, and the sound organs are close to each other reducing the life of the voice tube to the extent that the air passes with difficulty and causes a scratch. Examples of Kiwaḥḥa consonants with this characteristic are [f], [v], [s], [z], [ŋg], [t̪], [ð], [h], [q] and [ʃ].

**Affricates:** When uttering these sounds, the air is completely closed by the vocal cords and then released suddenly and explosively, but the vocal cords do not completely leave, leaving a small opening through which the air continues to pass with difficulty, causing a scratch. Examples of Kiwaḥḥa consonants with this characteristic are [tʃ] and [dʒ].

**Nasals:** These are sounds that when uttered air passes through the nose. Examples of Kiwaḥḥa sounds with this characteristic are [m] [n] and [ŋ].

**Laterals:** When pronouncing these sounds, the speech organs come close to disrupting the air in a special way, that is, the tongue disturbs the air in a special way. There are two types of laterals:

**Lateral Liquid:** This sound is pronounced when the tongue is spread over the gums and allows air to penetrate the side of the tongue. An example of this sound in the Waḥḥa language is [l].

**Rhotic Liquid:** This sound is pronounced where the tip of the tongue falls on the gums while air continues to pass. An example of this sound in the Waḥḥa language is [r].

**Semivowels:** In the pronunciation of semivowel sounds, the articulation instruments are largely separated and ensure the abundance of air in the mouth. An example of these sounds in the Kiwaḥa language is [w] and [j].

**Nasality:** Nasality from the palate can pass through either the nose or the mouth, and the organ responsible for this is the tongue. The tongue can descend downwards towards the root, allowing air to pass through the nose. Alternatively, the tongue can be raised upwards towards the upper part of the throat wall, facilitating the passage of air through the mouth. Sounds produced with nasality passing through the nose are termed nasal sounds. In the Kiwaḥa language, these sounds are three, namely: [m], [n], and [ɲ].

**Glottal State:** This is the condition of the sound bands when pronouncing certain sounds. Any sound can be pronounced with the sound bands either vibrating or remaining still. Sounds that exhibit resonance or vibration when pronounced are called “voiced sounds,” while sounds that are pronounced without any resonance or vibration of the sound bands are called “voiceless sounds.”

In the Kiwaḥa language, the following sounds are considered as voiced and voiceless sounds: Voiced sounds include [b], [ɖ], [g], [ŋg], [v], [ð], [z], [j], [m], [n], [ɲ], [l], [r], [w], and [j]. Voiceless sounds include [p], [k], [f], [t̪], [s], [ʃ], [h], [tʃ], and [q].

**[b]** - Consonant [b] of Kiwaḥa uses the organs of both lips in its pronunciation. During its pronunciation, the air is completely blocked and then released to pass explosively. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is voiced because when pronouncing it, it exhibits resonance or vibration.

**[tʃ]** - The consonant [tʃ] of Kiwaḥa is pronounced in the part of the hard palate. During its pronunciation, the vowel is completely blocked and then released through the explosion, but the organs do not completely separate but leave a gap a bit where the air continues to pass with difficulty and cause a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is voiceless because when pronouncing it, the vocal cords do not develop or have a sound.

**[ɖ]** - Unlike in the Kiswahili language, the consonant [ɖ] in Kiwaḥa is a dental consonant. During its utterance, the current is completely blocked and then released to pass explosively. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[ð]** - The consonant [ð] of Kiwaaṭa uses the teeth in its pronunciation. During its pronunciation, the air stream is blocked, and the sound organs are close to each other reducing the life of the vocal tube to allow air to pass, barely causing a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[f]** - The consonant [f] in Kiwaaṭa uses the mouth and dental in its pronunciation. During its pronunciation, the air stream is blocked, and the vocal organs come close to each other reducing the life of the vocal cord enough to make the air pass with difficulty and cause a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is not a voiced sound because when pronouncing it, the vocal cords do not develop or have a rhythm.

**[g]** - The consonant [g] of Kiwaaṭa is pronounced in the soft palate. During its pronunciation, the air stream is completely blocked and then released to pass explosively. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[ŋg]** - The consonant [ŋg] in Kiwaaṭa is pronounced in the soft palate. During its pronunciation, the air stream is blocked, and the vocal organs are close to each other and reduce the life of the vocal cord to the extent that the air passes through with difficulty and causes a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[h]** - The consonant [h] of Kiwaaṭa is pronounced in the glottis/pharynx. During its pronunciation, the airflow is blocked, and the sound organs are close to each other and reduce the life of the vocal cord to allow air to pass with difficulty and cause a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is not a voiced sound because when pronouncing it, the vocal cords do not develop or have a rhythm.

**[j]** - The consonant [j] of Kiwaaṭa is pronounced in the part of the hard palate. During its pronunciation, the air stream is completely blocked and then released to pass explosively, but the instruments do not stop completely but leave a small opening where air continues to pass with difficulty and cause a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side

of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[k]** - The consonant [k] of Kiwaḥḥa is pronounced in the soft palate. During its utterance, the air current is completely blocked and then released to pass through the explosion. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is also a voiceless sound because when pronouncing it, the vocal cords have no inflection or pitch.

**[l]** - The consonant [l] of Kiwaḥḥa is pronounced on the gums. During its pronunciation, the tongue is spread over the gums and allows air to penetrate the side of the tongue. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[m]** - The consonant [m] of Kiwaḥḥa uses two lips during its pronunciation. This consonant is nasal because when pronouncing it, the air passes through the nose and not the mouth. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[n]** - The consonant [n] of Kiwaḥḥa is pronounced on the gums. This consonant is nasal because when pronouncing it, the air passes through the nose and not the mouth. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[p]** - The consonant [p] of Kiwaḥḥa uses the instrument of both lips in its pronunciation. During its pronunciation, the air stream is completely blocked and then released to pass explosively. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiceless sound because when pronouncing it, the vocal cords are not inflected or rasped.

**[q]** - The consonant [q] of Kiwaḥḥa is pronounced in the Uvula. During its pronunciation, the air stream is blocked, and the sound instruments come close to each other and reduce the life of the vocal cord to the extent that the air passes through trouble and causes a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, the vocal cords tend to expand and have a rhythm.

**[r]** - The consonant [r] of Kiwaḥḥa is pronounced on the gums. During its pronunciation, the tongue touches the gums as air continues to pass. This consonant

is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, the vocal cords tend to expand or have a rasp.

**[s]** - The consonant [s] in Kiwaaṭa is pronounced on the gums. During its pronunciation, the air stream is blocked, and the sound instruments come close to each other and reduce the life of the vocal cord to the extent that air passes through with trouble and causes a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiceless sound because when pronouncing it, the vocal cords do not develop or have a rhythm.

**[ʃ]** - The consonant [ʃ] of Kiwaaṭa is pronounced on the hard palate. During its pronunciation, the air stream is blocked, and the sound instruments come close to each other and reduce the life of the vocal cord to the extent that air passes through with trouble and causes a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is voiceless because when pronouncing it, the vocal cords do not develop or have a rhythm.

**[t̪]** - The consonant [t̪] of Kiwaaṭa is a dental consonant. During its pronunciation, the air stream is blocked, and the sound instruments are close to each other and reduce the life of the vocal cord to the point of making air pass with difficulty and causing a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiceless sound because when pronouncing it, the vocal cords are not inflected or rasped.

**[v]** - The consonant [v] of Kiwaaṭa uses the mouth and dental in its pronunciation. During its pronunciation, the air stream is blocked, and the vocal instruments come close to each other and reduce the life of the voice tube somewhat. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not the nose. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[w]** - The consonant [w] of Kiwaaṭa uses both lips during its pronunciation. In its pronunciation, the vocal cords are largely separated and ensure the abundance of air in the mouth. This consonant is not nasal because the air passes through the mouth and not the nose when pronouncing it. This consonant is a voiced sound because when pronouncing it, it exhibits resonance or vibration.

**[j]** - The consonant [j] of Kiwaaṭa is pronounced on the soft palate. In its pronunciation, the vocal organs are largely separated and ensure the abundance

of air in the mouth. This consonant is not nasal because the air passes through the mouth and not the nose when pronouncing it. This consonant is a voiced sound because when pronouncing it, the vocal cords tend to expand and have a rhythm.

**[ɲ]** - The consonant [ɲ] of Kiwaaṭa is pronounced on the hard palate. This consonant is nasal because when pronouncing it, the air passes through the nose and not the mouth. This consonant is a voiced sound because when pronouncing it, the vocal cords tend to expand or have a rasp.

**[z]** - The consonant [z] of Kiwaaṭa is pronounced on the gums. During its pronunciation, the air stream is blocked, and the sound instruments come close to each other and reduce the life of the vocal cord to the extent that air passes through with difficulty causing a scratch. This consonant is not nasal because when pronouncing it, the air passes through the side of the mouth and not through the nose. This consonant is a voiced sound because when pronouncing it, the vocal cords tend to expand or have a rasp.

After identifying the Kiwaaṭa phonemes, the researcher conducted her research in three schools located in Mijomboni, Dabaso, and Gede in Kenya, by visiting these schools on different days to be able to collect her data. For each school that the researcher visited, she gave essays to students in Mijomboni, Dabaso, and Gede who are of Waaṭa origin, and before collecting those essays, each student had to read his essay aloud while the researcher recorded the reading and after each student to read, the researcher collected those essays to revise.

### ***Identifying Errors***

The researcher was able to identify various errors in the essays of the students of Waaṭa origin, such as punctuation errors, syntactic errors, and semantic errors, but the researcher focused mainly on morphophonological errors. At this point, the researcher was able to identify various morphophonological errors in the essays of these students. The researcher underlined all the morphophonological errors that appeared in the essays to facilitate the next steps in the data analysis.

### ***Classifying Errors***

After the researcher identified the students' morphophonological errors, she classified those errors into groups. Since the research involved morphophonological errors, the researcher classified those errors according to different groups. The researcher classified the errors into three groups, which are: Errors of Substitution, Errors of insertion, and Errors of omission. The researcher classified those morphophonological errors into three groups as follows:

<b>Errors of substitution</b>	Kithabu, utheo, mkathe, dakithari, maithi, kupothea, mafutha, uthafithi, stharehe, thupa, thaarisha, wathamu, thoweka, uthani, katha, thibithisha, gala, garama, bugudha, luga, gafa, gorofa, adhabu, gedhe na dhidha.
<b>Errors of omission</b>	Kesh, mulik, nyapanyap, mardufu, badae, nufaik, safar, shiling, maas, imben, dosar, mwalim, mda, alikosi, hohehae, jiadhari, maali, mtiani, ilo, muudumu, uu, isani, alieitikia, aliekua, badae, thaarisha, ajuwae, dani, bao, boga na shuuli.
<b>Errors of insertion</b>	Inje, dakithari, amukua, muradi, amuka, walimushukuru, mujini, njungu, anjali na ndunia

### *Counting Errors*

Students' errors were counted according to the different groups that had been classified by the researcher. As a result of this research, errors in the omission of consonant and vowel phonemes were evident in abundance, followed by errors in the use of substitution of phonemes and lastly, errors in the insertion of phonemes were also noted.

### *Identifying Faulty Components*

This step explained in detail all the errors found in the essays of Waaṭa students learning Kiswahili as a second language. The researcher classified elements with errors into three groups including, the substitution of phonemes, the omission of phonemes, and the insertion of phonemes.

### *The Substitution of Phonemes*

The substitution of phonemes occurs when one phoneme is used instead of another. Essays from Waaṭa students revealed these errors as follows:

#### The use of the [ə] phoneme instead of the [t] phoneme

Many errors made by students with Kiwaaṭa origin learning Swahili as a second language have shown the use of the [ə] phoneme instead of the [t] phoneme in their essays. Many languages that lack a particular phoneme in their language use alternative phonemes when learning a second language. The Waaṭa language lacks the [t] phoneme in its phoneme inventory, so instead of the [t] phoneme, they use the [ə] phoneme. These errors are a result of the influence of their first language because the Waaṭa language does not have the [t] consonant, so due to this influence, students use the [ə] phoneme instead of the [t] when pronouncing and writing. The errors evident in the essays of these students include the following:

<b>Incorrect form</b>	<b>Correct form</b>
Kithabu	Kitabu
Utheo	Uteo
Mkathē	Mkate
Dakithari	Daktari
Maithi	Maiti
Kupothēa	Kupotea
Mafutha	Mafuta
Uthafithi	Utafiti
Stharehe	Starehe
Thupa	Tupa
Thaarisha	Tayarisha
Wathamu	Watamu
Thoweka	Toweka
Uthani	Utani
Katha	Kata
Thibithisha	Thibitisha

The morphophonological rule that demonstrates this process of substitution of phonemes is:

$$/t/ \text{---} / \theta / \text{---} /v/$$

The phoneme [t] changes to the phoneme [θ] before the vowel phoneme.

#### The use of the phoneme [g] instead of the phoneme [ɣ]

The use of the phoneme [g] instead of the phoneme [ɣ] has been evident in the essays of students with the Kiwaḫa language background. The Kiwaḫa language does not have the consonant phoneme [ɣ] in the list of its phonemes, so the absence of the phoneme [ɣ] in the Kiwaḫa language has caused errors in the use of the [g] sound instead of the [ɣ] sound. Therefore, these errors are due to the morphophonological differences of the Kiwaḫa language which is the first language, and Kiswahili which is their second language, so due to this effect, the students are affected by their first language.

Incorrect form	Correct form
Gala	<b>G</b> hala
Garama	<b>G</b> harama
Bugudha	Bu <b>g</b> hudha
Luga	L <b>u</b> gha
Gafla	<b>G</b> hafla
Gorofa	<b>G</b> horofa

The morphophonological rule that demonstrates this process of substitution of phonemes is:

$$/ɣ/ \longrightarrow /g/ \text{ -/v/}$$

The phoneme [ɣ] changes to the phoneme [g] before the vowel phoneme.

#### The use of the phoneme [ð] instead of the phoneme [d]

The errors of using the phoneme [ð] instead of [d] have been evident in the essays of Waɔ̀ta students learning Kiswahili as a second language. In the Kiwaɔ̀ta language, the phoneme [d] is close to the phoneme [ð] in its pronunciation because the sounds [ð] and [d] in the Waɔ̀ta language use dental organs in their pronunciation, unlike the Kiswahili language where the phoneme [d] uses the gums organs and the phoneme [ð] use the dental organs, so the differences cause errors of using the sound [ð] instead of the sound [d] for students learning Kiswahili as a second language as follows:

Incorrect form	Correct form
Adhabu	Adabu
Gedhe	Gede
Dhidha	Dida

The morphophonological rule that demonstrates this process of substitution of phonemes is:

$$/d/ \longrightarrow /ð/ \text{ -/v/}$$

The consonant phoneme [d] changes to the phoneme [ð] before the vowel phoneme.

#### The use of the phoneme [g] instead of the phoneme [ŋ]

Unlike the Bantu languages that have the sound [ŋ] in their consonants, the

Kiwaḥḥ language, which is a Cushitic language, does not have the [ŋ] consonant sound. This state of not having this sound has caused the error of using the sound [g] instead of the sound [ŋ] for Waaḥ students learning Kiswahili as a second language. These errors have been revealed through the students' essays as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Gombe	Ng'ombe

The morphophonological rule that demonstrates this process of substitution of phonemes is:

/ŋ/ → /g/    -/v/

The consonant phoneme [ŋ] of the vowel changes to the phoneme [g] before the vowel phoneme

### *The Omission of Phonemes*

The omission of phonemes occurs when certain phonemes in pronunciation and writing are omitted due to reasons such as language effects, study levels, and so on. The omission of phonemes can occur at the beginning, middle, or end of a word.

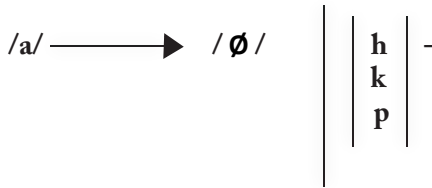
Kiwaḥḥ is a Cushitic language that has a closed syllabic system where words end in consonants. This situation leads to students omitting vowel sounds when learning Kiswahili as a second language due to the morphophonological differences between Kiwaḥḥ which is the first language and Kiswahili which is the second language. This study revealed the omission of some vowels in different contexts in the essays of students of Waaḥ origin who are learning Kiswahili as a second language.

### The omission of the phoneme [a]

Errors of omitting phoneme [a] in the middle and end of words have been noted in the essays of students of Waaḥ origin as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Kesh	Kesha
Mulik	Mulika
Nyapa nyap	Nyapa nyapa
Mar dufu	Mara dufu
Badae	Baadaye
Nufaik	Nufaika

The morphophonological rule that demonstrates this process of omission of the vowel phoneme is as follows:



The vowel sound [a] is omitted after consonants [h], [k] and [p] respectively in the words ‘kesh’, ‘mulik’, ‘nufaik’ and ‘nyapanyap’.



The vowel sound [a] is omitted before vowel sound [a] in the word ‘badae’.



The vowel sound [a] is omitted before vowel sound [r] in the word ‘mar dufu’.

These errors of omitting the phoneme [a] are caused by the morphophonological differences between the Kiwaata language and the Kiswahili language because the Kiwaata language has a closed syllable system in its words, unlike the Kiswahili language which has an open syllable system.

The omission of the phoneme [i]

Errors of omitting phoneme [i] were also evident in the essays of students learning Kiswahili as a second language in the middle and end of the word as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Safar	Safari
Shiling	Shilingi
Maas	Maasi
Imben	Imbeni
Dosar	Dosari

The morphophonological rule that demonstrates this process of omission of the vowel phoneme is as follows:

$$/i/ \longrightarrow / \emptyset / \quad \left| \begin{array}{c} r \\ g \\ s \\ n \end{array} \right| -$$

The vowel sound [i] is omitted after the consonants [r], [g], [s] and [n] respectively.

#### The omission of the phoneme [u]

Essays of students of Waaṭa origin showed the errors of omitting the vowel sound [u] in some words in the middle and final environment as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Mwalim	Mwalimu
Mda	Muda

The morphophonological rule that demonstrates this process of omission of the vowel phoneme is as follows:

$$/u/ \longrightarrow / \emptyset / / m / -$$

The vowel sound [u] is omitted after the consonant [m].

These errors of omitting the vowel sound [u] are caused by the morphophonological differences between the Kiwaaṭa language and the Kiswahili language because the Kiwaaṭa language has a closed syllable system in its words, unlike the Kiswahili language which has an open syllable system.

#### *The Omission of Consonants*

This study revealed the omission of some consonants in the essays of the Waaṭa students who are learning Kiswahili as a second language.

#### The omission of the phoneme [h]

The results of this study indicated that the Waaṭa students omit consonant [h] in some words with Kiswahili origin, thus creating a word that does not have a suitable structure.

<b>Incorrect form</b>	<b>Correct form</b>
Alikosi	<b>H</b> alikosi
Hohehae	Hoheha <b>h</b> e
Jiadhari	<b>J</b> iadhari
Maali	<b>M</b> ahali
Mtiani	<b>M</b> tihani
Ilo	<b>H</b> ilo
Muudumu	<b>M</b> hudumu
Uu	<b>H</b> uu
Isani	<b>H</b> isani

The morphophonological rule that demonstrates this process of omission of the consonant phoneme is as follows:

$$/h/ \longrightarrow / \emptyset / \text{ / } -/v/$$

The consonant sound [h] is omitted before the vowel sound.

#### The omission of the phoneme [j]

The data of this research showed the errors of omitting the consonant [j] in some words in the essays of the Waaṭa students as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Alieitikia	Aliyeitikia
Aliekuwa	Aliyekuwa
Badae	Baadae
Thaarisha	Tayarisha
Ajuwae	Ajuwaye

The morphophonological rule that demonstrates this process of omission of the vowel phoneme is as follows:

$$/j/ \longrightarrow / \emptyset / \text{ / } -/v/$$

The consonant sound [j] is omitted before the vowel sound.

#### The omission of the phoneme [m]

The omission of consonant [m] was also evident in the Waaṭa students' essays at the beginning of the words as follows:

Incorrect form	Correct form
Bao	Mbao
Boga	Mboga

The morphophonological rule that demonstrates this process of omission of the consonant phoneme is as follows:

$$/m/ \text{ / } \longrightarrow \emptyset / \text{ / } -/b/$$

The consonant sound [m] is omitted before the consonant [b].

#### The omission of the phoneme [ɣ]

The omission of consonant [ɣ] was also evident in the essays of Waaṭa students learning Kiswahili as a second language as follows:

Incorrect form	Correct form
Shuuli	Shughuli

The morphophonological rule that demonstrates this process of omission of the consonant phoneme is as follows:

$$/\gamma/ \longrightarrow / \emptyset / \text{ / } -/v/$$

The consonant sound [ɣ] is omitted before the vowel sound.

Students of Kiwaṭa origin omit the phoneme [ɣ] in some of their words because they do not have this phoneme in the list of consonant phonemes of their Kiwaṭa language.

#### ***The Insertion of Phonemes***

According to Mugaya (2019), insertion is a phonological process where a certain element is added in a word formation causing the element to change the pronunciation and the intended meaning.

The insertion could either be of consonants or vowel phonemes. These insertion errors were evident in the essays of Waaṭa students, and this is because even though the language has a system of closed syllables, i.e. many words end with consonants, the language also has a system of open syllables that make the Waaṭa students insert either vowels or consonants.

### The Insertion of Vowel Phonemes

These errors occur when vowels are added to a word inappropriately and thus create an incorrect word as follows.

#### Insertion of phoneme [i]

The results of this study revealed that Waaṭa students insert the phoneme [i] in some Swahili words, thus creating a word that does not have a suitable structure.

<b>Incorrect form</b>	<b>Correct form</b>
Inje	Nje
Dakithari	Daktari

The morphophonological rule that demonstrates this process of insertion of the vowel phoneme is as follows:

$$/ \emptyset / \longrightarrow / i / \text{ / } - / c /$$

The vowel sound [i] is inserted before the consonant [n] and [k] respectively.

#### Insertion of the phoneme [u]

The insertion of the phoneme [u] was also evident in the essays of the Waaṭa students learning Kiswahili as a second language as follows:

<b>Incorrect form</b>	<b>Correct form</b>
Amukua	Amkua
Muradi	Mradi
Amuka	Amka
Walimushukuru	Walimshukuru
Mujini	Mjini

The morphophonological rule that demonstrates this process of insertion of the vowel phoneme is as follows:

$$/\emptyset/ \longrightarrow /u/ \text{ / } -/m/$$

The vowel sound [u] is inserted before the consonant [m].

### ***Insertion of Consonants***

The results of this study also revealed the errors that occur due to insertion of some consonants as follows:

#### Insertion of the consonant [n]

The results of this study revealed that students of Waaṭa origin insert the consonant [n] in some Swahili words, thus creating a word that does not have an appropriate structure.

Umbo lisilo sahihi	Umbo lililo sahihi
Njungu	Jungu
Anjali	Ajali
Ndunia	Dunia

The morphophonological rule that demonstrates this process of insertion of the consonant phoneme is as follows:

$$/\emptyset/ \longrightarrow /n/ \text{ / } -/c/$$

The consonant sound [n] is inserted before the consonant [j] and [d] respectively.

### **Identifying the Source of Errors**

The researcher found that the source of many errors made by the Waaṭa students learning Kiswahili as a second language was due to the morphophonological differences between Kiswahili which is their second language and Waaṭa language which is the first language of these students.

Unlike the Kiswahili language, the Kiwaaṭa language does not have the consonants [t], [x], [ɣ] and [ŋ] and has added the consonants [q] and [ɕ] in its phonemes. The absence of some phonemes in the Waaṭa language that exist in the Kiswahili language and the presence of phonemes that do not exist in the Kiswahili language have contributed to these students' making errors when learning Kiswahili as their second language.

The researcher also found that the source of some of the errors especially the insertion errors done by the Waaṭa students learning Kiswahili as their second language was because of the language spoken by the neighboring community which is the Giriama.

### Strategies to Correct the Errors Identified in the Study

The researcher suggested strategies that would be used by teachers so that they can help students improve their pronunciation and writing when learning Kiswahili as a second language as follows:

First, teachers should list all the phonemes of the Kiswahili language and all the phonemes of the Kiwaḥa language and teach them by showing the students the difference between the phonemes of these two languages. This method will help the students to identify the difference between the Kiswahili language and the Kiwaḥa language as well as they will try to avoid mistakes.

In addition, the researcher suggested that teachers take the responsibility of giving them regular oral and written exercises while correcting the students so that they can improve their pronunciation as well as their writing. The researcher recommends this strategy to give students regular practice so that they can improve their speaking and writing. The exercises can be reading Kiswahili passages aloud and slowly as well as giving students an essay to write. Reading exercises aloud will help the students improve their pronunciation, thus improving their writing as well.

### Conclusion

This study involved analyzing the errors made by Waaḥa students when learning Kiswahili as a second language. Therefore, the study involved analyzing the data collected through the writing and reading of essays. The data of this study identified the errors of substitution, the errors of omission as well as the errors of insertion. Most of these errors made by the Waaḥa students learning Kiswahili as a second language were due to the morphophonological differences between Kiwaḥa language, which is the first language, and Kiswahili, the second language, and some of the errors were also due to the effect of the language spoken by the neighboring community, which is the Giriama community.

Based on this research, it can be concluded that Waaḥa is a language with a comprehensive system of vowels and consonants. The study identified twenty-nine Waaḥa phonemes, including five vowels [a], [ɛ], [i], [ɔ], and [u] and twenty-four consonants [b], [tʃ], [dʒ], [dʒ̄], [f], [ŋg], [g], [h], [j], [k], [l], [m], [n], [p], [q], [r], [s], [ʃ], [tʃ], [v], [w], [j], [ɲ], and [z].

The study also found that many of the errors made by students could be attributed to morphophonological differences between their first language, Kiwaḥa, and their second language, Kiswahili. These differences, such as the absence of certain consonants and the addition of others, played a significant role in the errors made by Waaḥa students when learning Kiswahili.

Example: The Kiwaḥa language does not have the consonant phoneme [t], so the students used the consonant [θ] instead of the consonant [t] in the words. Similarly, the Kiwaḥa language does not have the phoneme [ŋ], thus causing students to use the consonant sound [g] instead of the phoneme [ŋ].

Moreover, this research was guided by The Error Analysis Theory by Corder (1974) and Sridhar and Sridhar (1980 p. 222), and as applied in this research, it proved to be a useful framework for analyzing the morphophonological errors made by students learning Kiswahili as a second language.

### Recommendations

This research analyzed the morphophonological errors of Waata students learning Kiswahili as a second language. Since the researcher focused only on the morphophonological level, she recommends that another researcher consider other levels such as Syntax, Semantics, and Morphosyntax, which were not addressed due to the broad scope of the subject.

In this study, data was gathered through interviews, essay writing, and essay reading. As a result, the researcher suggests that another researcher use different methods, such as debates, to collect data on the mistakes made by students learning Kiswahili as a second language.

Furthermore, based on the study's findings, the researcher suggests that anyone researching the Kiwaata language should focus on phonological features such as tone, diacritics, and stress and how they affect the use of the Kiwaata language.

The researcher was also guided by Error Analysis Theory's approach to identifying errors made by students learning Kiswahili as a second language. As a result, the researcher recommends that another researcher employ a different theoretical approach to analyze the errors made by students learning Kiswahili as a second language.

This study investigated the differences in morphophonological as a major factor in the errors made by students learning Kiswahili as a second language. This is one of the reasons why students learning Kiswahili as a second language make errors. Therefore, the researcher recommends that another researcher should focus on other factors that cause students learning Kiswahili as a second language to make errors, such as interactions with other ethnic groups and the like.

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